

# Notice of Allowability

Application No.

10/035,137

Examiner

John S. Chu

Applicant(s)

KURIHARA ET AL.

Art Unit

1752

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/28/04.
2. ☒ The allowed claim(s) is/are 1 and 3-5.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 12/28/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

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**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 3, 4 and 5, line 4 after the formula insert the following - - . - - at the end of the sentence to give a period.

**REASONS FOR ALLOWANCE**

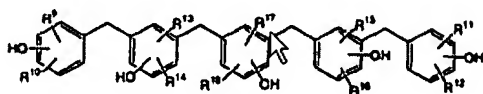
2. The following is an examiner's statement of reasons for allowance: The claimed invention is drawn to the following:

**Claim 1 (currently amended): A positive photoresist composition comprising:**

(A) an alkali-soluble resin;

(B) a photosensitizer comprising a quinonediazide ester between a naphthoquinonediazidosulfonic acid compound and a compound represented by following Formula

(II):



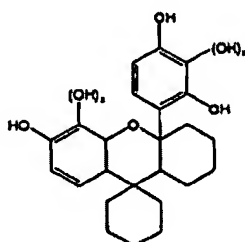
(II)

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wherein  $R^9$ ,  $R^{10}$ ,  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$  and  $R^{18}$  are each independently a hydrogen atom, an alkyl group having from 1 to 3 carbon atoms or a cyclohexyl group; and

(C) a sensitizer comprising at least one of compounds represented by following

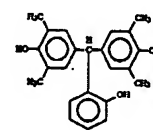
Formula (III):



(III)

wherein x is 0 or 1.

Applicants have submitted a declaration under 37 C.F.R. 1.132. The declaration compares a composition even closer than the closest prior art reference to UETANI et al '779 used in the rejection. The comparative examples 1-3 of the declaration use the photosensitizer in



the claimed application with the additive disclosed in UETANI et al '799 ( ). The declaration demonstrated "excellent" shrinkage (lengths of the resulting traces were equal to or more than 0.9  $\mu$ m and less than or equal to 1.0  $\mu$ m, indicating no shrinkage) of the patterned image comprising the claimed ingredients, while the prior art compositions to comparative examples 1-3 demonstrated an evaluation of "fair" defined on page 6 of the declaration (lengths of traces were equal to or more than 0.7  $\mu$ m and less than 0.8  $\mu$ m). The evidence indicates that the claimed composition gives improved shrinkage as stated by applicant in the Remarks, page 4.

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Applicants have abandoned the allowed application on December 28, 2004 in favor of filing an RCE to get references that were cited in a foreign search report into the record of the current application. These references have been cited in a PTO/SB/08 received on December 28, 2004. These references have been considered by the examiner and are made of record and fail to anticipate or render obvious the claimed invention as now recited.

Based on the claimed invention demonstrating unexpected results over the prior art compositions, claims 1, and 3-5 are seen as allowable and again passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

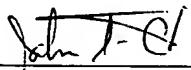
The fax phone number for the USPTO is (703) 872-9306. **On July 15, 2005 applicants should begin sending correspondence to the new USPTO Central fax phone number at 571-273-8300. Applicants can still use the old fax number until September 15, 2005 at which time the old fax number will no longer be operational.**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
\_\_\_\_\_  
John S. Chu  
Primary Examiner, Group 1700

J.Chu  
July 8, 2005